

CLAIMS

1. A method of mapping a plurality of states for controlling hot-swappability in a Compact Peripheral Component Interconnect (CPCI) system, said method
5 comprising:

specifying a hot-swap state of a CPCI node card for controlling hot-swappability of said CPCI node card;

mapping said hot-swap state onto an intermediate state by searching a common library associated with said front card and a management software for said front card;
10 and

mapping said intermediate state onto a first management state of said management software and a second management state of said management software;

wherein said management software requires both said first and second management states to manage said front card.

2. The method of Claim 1, further comprising:
specifying a second hot-swap state of said CPCI node card for controlling hot-swappability of said CPCI node card;

specifying a transition state of said CPCI node card when said front card
20 transitions from said first hot-swap state to said second-hot swap state;

mapping said transition state onto an intermediate transition state by searching a common library associated with said front card.

3. The method of Claim 2, further comprising:
25 notifying said management software of said intermediate transition state.

4. The method of Claim 3, further comprising the step of mapping said intermediate transition state onto a third management state of said management software and a fourth management state of said management software.

5. The method of Claim 4, wherein said first and third management states comprise a first operational state and a second operation state and wherein said second and fourth management states comprise a first availability state and a second
5 availability state.

6. The method of Claim 1, further comprising:
representing said CPCI node card as a plug-in unit; and
managing said CPCI node card as said plug-in unit by said management
10 software upon said mapping of said intermediate state onto said first and second management states

7. A method of mapping a plurality of states for controlling hot-swappability in a Compact Peripheral Component Interconnect (CPCI) system, said method
15 comprising:

specifying a PCI Industrial Computer Manufactures Group (PICMG) hot-swap state of a CPCI node card for controlling hot-swappability of said CPCI node card;

mapping said PICMG hot-swap state onto an intermediate state by searching a common library associated with said front card and a management software for said
20 front card; and

mapping said intermediate state onto a Telecommunication Management Network (TMN) plug-in unit state of said management software;

wherein said management software requires said TMN plug-in unit state to manage said front card.

8. The method of Claim 9, wherein said common library comprises a Common Operating System Library (COSL) and wherein said intermediate state comprises a COSL state.

9. The method of Claim 7, further comprising:
representing said CPCI node card as a TMN plug-in unit; and
managing said CPCI node card as said TMN plug-in unit by said management
software upon said mapping of said intermediate state onto said TMN plug-in unit state

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10. A Compact Peripheral Component Interconnect (CPCI) system,
comprising:

a CPCI chassis;

a circuit board forming a backplane within said chassis;

10 a CPCI node card coupled with said circuit board, said node card providing a hot-
swap state;

a manager for managing said CPCI card using a first management state and a
second management state;

15 a common library associated with said CPCI node card and said manager, said
common library providing an intermediate state;

wherein said hot swap state is mapped onto said intermediate state of said
common library; and

wherein said intermediate state is mapped onto said first and second
management states of said manager.

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11. The CPCI system of Claim 10, wherein said manager requires said hot-
swap state to be mapped onto said first and second management states via said
intermediate state to manage said CPCI node card.

25 12. The CPCI system of Claim 10, wherein said manager manages said CPCI
node card as a plug-in unit once said hot-swap state has been mapped onto said first
and second management states via said intermediate state.

13. The CPCI system of Claim 12, wherein said plug-in unit comprises a Telecommunication Management Network (TMN) plug-in unit.

14. The CPCI system of Claim 10, wherein said hot-swap state describes a hot-swap status of said CPCI node card.

15. The CPCI system of Claim 10, wherein said first management state comprises an operational state and said second management states comprises an availability state.

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16. The CPCI system of Claim 15, wherein said operational state comprises one of a null-operational state, an up-operational state, a down-operational state, and an unknown-operational state.

17. The CPCI system of Claim 15, wherein said availability state comprises one of a null-availability state, a power-off-availability state, an offline-availability state, an available-availability state, a failed-availability state, and an unknown-availability state.

18. The CPCI system of Claim 10, wherein said intermediate state comprises one of a no plug-in state, a first power-off state, a second power-off state, a first unavailable-state, a second unavailable-state, an available state, a failed state, and an unknown state.

19. The CPCI system of Claim 10, wherein said hot-swap state comprises a plurality of states for indicating plug-in status.

20. The CPCI system of Claim 10, wherein said hot-swap state comprises one of a first state for indicating a plug-in unit is present, but not powered on; a second state for indicating a plug-in unit is powered up, but not connected; a third state for indicating a plug-in unit is connected; a fourth state for indicating a plug-in unit is configured, but
5 drivers are not loaded and associated; a fifth state for indicating a plug-in unit is configured and drivers are loaded and associated; a sixth state for indicating a plug-in unit is in use; and two failed states.

21. The CPCI system of Claim 10, wherein said manager comprises a
10 management software having plug-in units based on Telecommunication Management Network (TMN) standard.

22. The CPCI system of Claim 21, wherein said hot-swap state comprises a
15 state based on a PCI Industrial Computer Manufactures Group (PICMG) hot-swap/High Availability (HA) specification.

23. The CPCI system of Claim 22, wherein said management software manages said CPCI node card as a TMN plug-in unit and requires said hot-swap state to be mapped onto said first and second management states via said intermediate state
20 in order to manage said CPCI node card as said TMN plug-in unit.